

REMARKS

This paper is responsive to a Non-Final Office action dated June 16, 2006. Claims 1, 8-17, and 19-20 were examined.

Claim Rejections – 35 U.S.C. §103

Claims 1, 8-17, and 19-20 are rejected under 35 U.S.C. §103(a) as being unpatentable over the combination of Mothersole et al., U. S. Patent No. 4,633,437 (hereinafter, “Mothersole”), Aldereguia et al., U. S. Patent No. 5,255,374 (hereinafter, “Aldereguia”), and Enns et al., U. S. Patent No. 6,658,010 (hereinafter, “Enns”).

The Office action admits that both Aldereguia and Mothersole fail to teach setting a transmit width and receive width separately. The Office action relies on Enns to make up this deficiency. The Office action states that “Mothersole does not explicitly disclose separately specify [sic] the width for transmitting and receiving when the communication is crossing a bridge as disclosed by Aldereguia.” Applicants note that claim 1 as amended recites setting a transmit width of a transmit portion of the link interface for transmitting to a second device based on a usable transmit width and setting a receive width of a receive portion of the link interface for receiving from the second device based on a usable receive width. Aldereguia fails to teach separately specifying the widths for transmitting and receiving between a first and second device as recited.

Applicants respectfully submit that Enns fails to make up for this deficiency. The Office action points to the Abstract of Enns which recites:

A modular architecture of the system permits independent scalability of upstream and downstream capacity separately for each of the upstream and downstream physical paths. Allocation of downstream bandwidth to requesting devices is made according to bandwidth utilization by other devices, bandwidth demand by the requesting remote device, class or grade of service by the requesting remote device or bandwidth guaranteed to other remote devices.

However, Enns is directed to a different problem than either Aldereguia or Mothersole. Enns' teachings relate to a broadband network. For example Enns teaches at col. 4, line 64 to col. 5, line 16:

Modularity of components and independent upstream and downstream controller provide scalability of the respective upstream and downstream channels at the network, link and physical layers. Providing independently operating downstream and upstream controllers 14 and 12, for example, facilitates matching equipment of a given capacity with desired traffic loads independently in each direction of an asymmetric broadband network. In the preferred physical arrangement, separate hardware racks or separated rack-mounted components are used to establish independent operation and control of the respective asymmetric paths. Each controller has its own operating system and either may be serviced without affecting the operations of the other. (emphasis added).

As can be seen from the above quote, Enns further teaches separate hardware racks or separated rack-mounted components are used to establish independent operation and control of the respective asymmetric paths. That sort of implementation is unfeasible in the teachings of either Aldereguia or Mothersole. Neither are directed to asymmetric control of broadband networks. Instead, Aldereguia deals with I/O in a computer system where the input/output bus width in a computer system is smaller than the system bus. (See Abstract). There is no reason to modify Aldereguia, directed to a computer system I/O bus coupled to a peripheral device to implement an asymmetric broadband network as taught by Enns. Further, nothing in Enns teaches separately specifying the widths for transmitting and receiving between a first and second device as recited in claim 1. In fact, as pointed out above, Enns teaches *separate hardware racks or separated rack-mounted components are used to establish independent operation and control of the respective asymmetric paths*. Nor does Mothersole make up for this deficiency since Mothersole teaches a single bi-directional data bus connecting data bus interface 18 and storage device 10. See Fig. 1.

During patent examination the PTO bears the initial burden of presenting a prima facie case of unpatentability. In re Oetiker, 977 F.2d 1443, 1445, 24 USPQ2d 1443, 1444 (Fed. Cir. 1992); In re Piasecki, 745 F.2d 1468, 1472, 223 USPQ 785, 788 (Fed. Cir. 1984). If the PTO fails to meet this burden, then the applicant is entitled to the patent. To establish a prima facie

case of obviousness, three basic criteria must be met. First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. Second, there must be a reasonable expectation of success. Finally, the prior art reference (or references when combined) must teach or suggest all claim limitations. See MPEP § 2143. Further, in holding an invention obvious in view of a combination of references, there must be some suggestion, motivation, or teaching in the prior art that would have led a person of ordinary skill in the art to select the references and combine them in the way that would have produced the claimed invention. See Karsten Mfg. Corp. v. Cleveland Golf. Co., 58 USPQ2d 1286, 1293 (Fed. Cir. 2001).

Applicants respectfully submit that the combination of Aldereguia, Mothersole, and Enns fails to teach all the elements of the claimed invention. Further, one of ordinary skill would not have been motivated to modify the computer system I/O bus of Aldereguia by incorporating the asymmetrical broadband network teachings of Aldereguia. Further, even if modified, the combination of Aldereguia and Enns fails to teach separately specifying the widths for transmitting and receiving between a first and second device as recited in claim 1. Mothersole fails to make up for that deficiency. Accordingly, applicants submit that claim 1 and all claims dependent thereon distinguish over the references of record.

Applicants note that independent claim 8 recites a width of data received is set according to a value held in a separately programmable receive width register. That is not taught or suggested in the references of record as pointed out above. Accordingly, applicants respectfully submit that claim 8 and all claims dependent thereon distinguish over the art of record.

Applicants note that independent claim 13 recites means for setting a receive width of a receive portion of the link interface based on a usable receive width separately from setting the transmit width. That is not taught or suggested in the references of record as pointed out above. Accordingly, applicants respectfully submit that claim 8 and all claims dependent thereon distinguish over the art of record.

New claims 21-25 generally correspond to canceled claims 2-7 and are patentable for at least the reasons given for claim 1.

Claim 26 recites a method for configuring a point to point communication link coupling a first and a second device. The claim recites that configuring a first communication link interface in the first device includes setting a transmit width of a transmit portion of the first communication link interface based on the lesser of a maximum transmit width of the transmit portion of the first communication link interface and a maximum receive width of a receive portion of a second communication link interface in the second device; and setting a receive width of a receive portion of the first link interface separately from setting the transmit width based on a lesser of a maximum receive width of the receive portion of the first communication link interface and a maximum transmit width of a transmit portion of the second communication link interface. Applicants respectfully submit claim 26 is not taught or suggested in the prior art of record alone or in combination. Specifically, applicants submit that the prior art fails to teach at least setting a receive width of a receive portion of the first link interface separately from setting the transmit width.

Claim 27 recites setting a transmit and receive width in the second device, which is not taught in any of the references of record.

In summary, claims 1, 8-17, 19, and 21-27 are in the case. All claims are believed to be allowable over the art of record, and a Notice of Allowance to that effect is respectfully solicited. Nonetheless, if any issues remain that could be more efficiently handled by telephone, the Examiner is requested to call the undersigned at the number listed below.

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Respectfully submitted,



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